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WHAT IS CLAIMED IS:

1. Procedure for the processing of data objects with:

a data space (6), in which data objects (19) are arranged;  
a multi-dimensional information space (5) that has at least two virtual dimensions (X, Y) and preferably also at least one third virtual dimension (Z);

whereby said information space (5) has in at least one dimension a large amount of discrete memory locations (7) suitable to represent information objects (7);

whereby each of said information objects (7) represent at least one information base-object (7) and whereby each information base-object comprises at least the following properties:

at least one pointer data (9) that is characteristic for the position of at least one data object (19) in the data space (6); and

at least one property data (14) for at least one virtual dimension of said information space;

wherein at least one set of instructions (8) is provided with at least one instruction for the processing of said data object (19); and

wherein, furthermore, at least one computing device (20) controlled by at least one processor (10) is provided, with which said information object (7) in said information space (5) is identifiable, and by which the processing of said data object (19) in accordance with said instruction set can be caused.

2. Procedure according to claim 1, wherein,  
at least one virtual dimension (21) is hierarchically structured, whereby a position of an information object (7)

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within the hierarchy is preferably defined by said property data (14) of said information object (7).

3. Procedure according to at least one of the preceding claims, wherein said information base object (7) has at least one property data (14) for substantially every virtual dimension, whereby for several virtual dimensions said property data (14) can be represented as a property vector.
4. Procedure according to at least one of the preceding claims, wherein said instruction set (8), of which there is at least one, is taken from a group of instruction sets, which comprise base, organization, request (70), creation, modification, searching, playback, representation, printing, generating, execution, control, interaction, calculation, evaluation, regulation, play instruction sets, and the like.
5. Procedure according to at least one of the preceding claims, wherein said procedure can be influenced by transferring at least one control vector (49) comprising at least one address vector (70), whereby said address vector is characteristic for a position of one instruction set (8).
6. Procedure according to at least one of the preceding claims, wherein said control vector (49) comprises at least one instruction vector (14) that is characteristic for at least one predefined instruction set (8).
7. Procedure according to at least one of the preceding claims, wherein said control vector (49) comprises at least one property

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vector (14), which characterizes at least one part (30) of said information space (5).

8. Procedure according to at least one of the preceding claims, wherein upon transfer of a control vector (49) and a pointer data (9) the following procedural steps are executed for the creation of an information object (7):
- a) Separating said control vector (49) into at least one address vector (49) and one instruction vector in a separating device;
  - b) Call-up of an instruction set (8) characterized by said instruction vector;
  - c) Derivation of a property vector (14) for a data object with said processor device (10);
  - d) Generation of an information object (7) from said pointer data and said property vector (14) with said processor device (10);
  - e) Saving said information object (7) in said information space (5).
9. Procedure according to at least one of the preceding claims, wherein upon transfer of a control vector (49) and a data object (19) the following procedural steps are executed for the creation of an information object (7):
- a) Separating said control vector (49) into at least an address vector (49) and at least an instruction vector in a separating device (10);
  - b) Call-up of an instruction set (8) that is characterized by said instruction vector;

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- c) Derivation of a property vector (14) for said data object (19) with said processor device (10);
  - d) Saving said data object (19) in said data space (6) and derivation of a pointer data (9);
  - e) Generation of an information object (7) from said pointer (9) and said property vector (14) with said processor device (10);
  - f) Saving said information object (7) in said information space (5).

10. Procedure according to at least one of the preceding claims, wherein upon transfer of a control vector (49) the following procedural Steps are executed for locating an information object (7):

- a) Separating said control vector (49) into at least an address vector (49), at least an instruction vector and at least a property vector (14) in a separating device;
- b) Generation of a processing vector with predefined property data (14) for substantially every virtual dimension in said processor device (10);
- c) Separating said property vector (14) in said processor device (10) into said property data (14a) for said virtual dimensions, contained in said property vector (14), and overwriting said property data (14a) of said processing vector with said the property data of said property vector;
- d) Generation of an empty result list;
- e) Execution of a search for information objects (7) in said information space (5), which substantially have

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corresponding property vectors (14) by comparing for substantially every virtual dimension said property data (14a) with said property data (14) in said processing vector;

f) Addition of a reference (87) to an information object (7) to said result list (82), if substantially all said property data (14a) substantially correspond;

g) Generation and output of a result file (82) substantially containing all elements of said result list.

11. Procedure according to at least one of the preceding claims, wherein said procedure is executed on a first computing device (20), whereby a user can control said process from a second computing device (3) that is connected with said first computing device via at least one data connection (18).

12. Procedure according to at least one of the preceding claims, wherein said information space (5) contains at least one virtual type dimension (61a), whereby at least one type data (61b) about a type of corresponding data object (19) is contained in said virtual type dimension for substantially every information object (7).

13. Procedure according to at least one of the preceding claims, wherein for at least one information object (7) at least one type data (61b) is derived from said pointer data (9) of said data object (19), whereby in a separating device (10) said pointer data (9) of said data object (19) is separated into name elements and said at least one type data (61b) is derived from at least one characteristic name element.

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14. Procedure according to at least one of the preceding claims, wherein  
for at least one information object (7) at least one type data (61b) is derived from at least one part of the contents of said data object (19), whereby in said separating device (10) at least a part of said contents of said data object (19) is separated into content elements and said at least one type data (61b) is derived from at least one characteristic content element.
15. Procedure according to at least one of the preceding claims, wherein  
at least one information object (7) contains at least one further object data taken from a group of object data, which contains at least one data of time, generation, time interval, validity, frequency, owner, group, access right, read right, write right, modification right, execution data, and the like.
16. Procedure according to at least one of the preceding claims, wherein  
said object type of said data object (19) is taken from a group of object types containing various known data formats types of text files, picture files, graphic files, spreadsheet files, CAD files, program files, audio files, video files.
17. Procedure according to at least one of the preceding claims, wherein  
for at least one information object (7) at least one description field (62a) is provided that is accessible via said information object (7), whereby said description field (62a) serves for receiving at least one characterizing data of said information object (7).

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18. Procedure according to at least one of the preceding claims, wherein an information object (7) can have at least one connection (43) to at least one further information object (7), thus enabling a navigation between connected information objects.
  19. Procedure according to at least one of the preceding claims, wherein for at least one information object (7), a content of at least one description field (62a) of said information object is separated in a separating device (10) into at least one characteristic data, and at least one characteristic content data is defined.
  20. Procedure according to at least one of the preceding claims, wherein at least one first characteristic content data of an information object (7) is compared, in a comparison device (10), with at least one second characteristic content data of at least one other information object (7), whereby on match of said first and second characteristic content data a connection (43) of said information object (7) to said other information object (7) is generated.
  21. Procedure according to at least one of the preceding claims, wherein at least one virtual connection space (40) is provided with at least two connection dimensions (41, 42) containing discrete memory locations, whereby said memory locations are created in such a way that said memory locations contain at least one connection data (43) for characterizing at least unidirectional relationships between different information objects (7).

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22. Procedure according to at least one of the preceding claims, wherein said at least one virtual connection space (40) has at least a two-dimensional connection table, whereby within at least one part of the rows (41), every row represents a different information object (7), and whereby, within at least one part of said columns (42), every column represents a different information object (7).
23. Procedure according to at least one of the preceding claims, wherein upon transfer of a control vector (49) said following procedural steps for navigation in said information system are executed:
- a) Separating said control vector (49) into at least an address vector and at least an instruction vector in a separating device (10);
  - b) Derivation of a property vector (14) from said control vector (49);
  - c) Generation of a processing vector with predefined property data (14a) for substantially every virtual dimension (61, 62, 63) in said processor device (10);
  - d) Separating of said property vector (14) in said processor device (10) into said property data (14a) for said virtual dimensions, contained in said property vector (14), and overwriting said property data (14a) of said processing vector with said property data (14a) of said property vector (14);
  - e) Generation of an empty search list;
  - f) Execution of a search for information objects (7) in said information space (5), which substantially have corresponding property vectors (14a), in which for



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substantially every virtual dimension (61, 62, 63)  
said property data (14a) are compared to said property  
data (14a) in said processing vector;

- g) Addition of a reference to an information object (7)  
to said search list, if substantially all said prop-  
erty data (14a) substantially match;
- h) Generation of an empty result list;
- i) Execution of a search for substantially every element  
of said search list according to information objects  
(7) in said connection space (40), which is connected  
with said information object (7), that is represented  
by said element, in at least a unidirectional way;
- j) Addition of a reference (87) to an information object  
(7) to said result list (87), if at least one unidi-  
rectional connection (43) exists;
- k) Creation and output of a result file (82), which sub-  
stantially contains all said elements (87) of said re-  
sult list (82);

24. Procedure according to at least one of the preceding  
claims, wherein  
at least one information object (7) can include at least  
one information element (31), whereby said information ele-  
ment (31) can represent at least one information object  
(7).

25. Procedure according to at least one of the preceding  
claims, wherein  
said data connection (18) is taken from a group of data  
connections containing data connections via telephone  
lines, radio, network, internet, cable, virtual data con-  
nections, and the like.

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26. Procedure according to at least one of the preceding claims, wherein a connection protocol is used for controlling said data connection (18), wherein said connection protocol is taken from a group of connection protocols containing serial connections and connection protocols such as TCP/IP, UUCP, UDP, NETBIOS, NETBEUI and other standardized connection protocols.
27. Procedure according to at least one of the preceding claims, wherein at least one protocol is used with said connection protocol, that contains interface protocols and service protocols such as http, ftp, ntp, smtp, pop, imap, OLE, ActiveX, COM; DCOM, RMI, ODBC, JINI, STEP, DTD, SQL, ADO, as well as standardizations according to CORBA and the like.
28. Procedure according to at least one of the preceding claims, wherein said data object (19) is stored in said data sphere or in a conventional database (13), as is state of the art.
29. Procedure according to at least one of the preceding claims, wherein for at least three virtual dimensions (61, 62, 63) a virtual connection space (40) is provided.
30. Procedure according to at least one of the preceding claims, wherein at least one connection data (43) contains a parameter relating to a connection intensity.
31. Data carrier for said execution of said procedure according to at least one of said preceding claims, characterized in that

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said procedural steps are included in at least one instruction set stored in said data carrier.

32. Computing device, consisting of:

at least a processor device; and

at least a memory device;

whereby said individual components of said computing device are arranged in a spatially adjacent or spatially distributed way;

whereby said computing device is suitable to execute a procedure in accordance with at least one of said claims 1 to 30.

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separate page